

APPENDIX A

NOISE LOGGING DATA

NOTES:

Sample ID No : N1-1
Environment : Day time
Frequency of Sampling : 1 st. Sampling
Sampling Location : KESAS HIGHWAY (Before Barrier)
Sampling Duration : 30 Minutes

Measuring Parameters:

Range 40-100dB Weighting A Time Constant FAST
Threshold OFF Exchange Rate 3dB Peak Weighting A

Session Started Session Stopped Run Time
24-AUG-98 @ 9:42:05 24-AUG-98 @ 10:12:05 00:30:00
Peak Level 102.6dB 24-AUG-98 @ 9:59:42
Max Level 90.7dB 24-AUG-98 @ 9:43:04
Min Level 64.8dB 24-AUG-98 @ 10:06:08
Overload 0.00%

LEQ 75.8dB SEL(3) 108.4dB TWA 63.8dB TAKM3 78.2dB
LDN 75.8dB CNEL 75.8dB Pa2Sec 27.5
L90 69.8dB L10 78.4dB L95 68.4dB L50 74.3dB

LOGGING (3 MIN) LEQ LMAX LPK L10 L90

Study 4
09:45:05 78.4dB 90.7dB 101.6dB 81.1dB 72.5dB
09:48:05 77.5dB 88.3dB 99.2dB 80.5dB 72.3dB
09:51:05 76.3dB 85.6dB 96.7dB 75.6dB 70.1dB
09:54:05 75.2dB 82.1dB 96.3dB 75.3dB 70.5dB
09:57:05 75.5dB 82.1dB 93.6dB 74.1dB 70.3dB
10:00:05 74.4dB 82.0dB 102.6dB 73.9dB 68.8dB
10:03:05 75.0dB 82.4dB 96.9dB 73.2dB 69.7dB
10:06:05 76.3dB 88.0dB 99.8dB 72.8dB 68.5dB
10:09:05 74.5dB 85.2dB 101.9dB 72.8dB 68.7dB
10:12:05 72.7dB 81.9dB 94.5dB 71.2dB 67.8dB

QUEST TECHNOLOGIES
1900 INTEGRATING/LOGGING SOUND LEVEL METER

Unit Version Number: 01.6

Serial Number:

Meter Calibration: 114.0dB 23-AUG-98 @ 20:09:11

Calibrator:

Serial Number _____ Calibration Date _____

NOTES:

Sample ID No : N1-3
Environment : Day time
Frequency of Sampling : 1 st. Sampling
Sampling Location : KESAS HIGHWAY (After Barrier)
Sampling Duration : 30 Minutes

Measuring Parameters:

Range 40-100dB Weighting A Time Constant FAST
Threshold OFF Exchange Rate 3dB Peak Weighting A

Session Started	Session Stopped	Run Time
24-AUG-98 @ 8:59:20	24-AUG-98 @ 9:29:20	00:30:00
Peak Level 85.6dB	24-AUG-98 @ 9:28:58	
Max Level 75.2dB	24-AUG-98 @ 9:28:58	
Min Level 57.0dB	24-AUG-98 @ 9:06:50	
Overload 0.00%		

LEQ	64.1dB	SEL(3)	96.7dB	TWA	52.1dB	TAKM3	65.8dB
LDN	64.1dB	CNEL	64.1dB	Pa2Sec	1.8		
L90	60.7dB	L10	66.4dB	L95	59.9dB	L50	63.4dB

LOGGING (3 MIN) LEQ LMAX LPK L10 L90

Study 3

09:02:20	64.6dB	69.0dB	80.9dB	66.4dB	62.7dB
09:05:20	64.0dB	70.4dB	80.8dB	65.9dB	61.7dB
09:08:20	63.7dB	73.4dB	84.7dB	63.6dB	59.9dB
09:11:20	63.8dB	71.8dB	82.2dB	63.5dB	60.4dB
09:14:20	63.2dB	68.7dB	80.0dB	62.4dB	59.8dB
09:17:20	64.2dB	73.4dB	83.3dB	62.5dB	59.8dB
09:20:20	63.8dB	71.6dB	83.1dB	62.1dB	59.5dB
09:23:20	64.4dB	74.4dB	84.9dB	62.1dB	60.4dB
09:26:20	64.4dB	71.6dB	83.3dB	61.9dB	60.6dB
09:29:20	65.1dB	75.2dB	85.6dB	61.9dB	61.0dB

NOTES:

Sample ID No : N1-2
Environment : Night time
Frequency of Sampling : 1 st. Sampling
Sampling Location : KESAS HIGHWAY (Before Barrier)
Sampling Duration : 30 Minutes

Measuring Parameters:

Range 50- 110dB Weighting A Time Constant FAST
Threshold OFF Exchange Rate 3dB Peak Weighting A

Session Started	Session Stopped	Run Time
7-SEP-98 @ 22:49:10	7-SEP-98 @ 23:19:10	00:30:00
Peak Level 98.6dB	7-SEP-98 @ 22:15:59	
Max Level 82.8dB	7-SEP-98 @ 22:00:40	
Min Level 46.0dB	7-SEP-98 @ 22:18:58	
Overload 0.00%		

LEQ	67.3dB	SEL(3)	99.8dB	TWA	55.2dB	TAKM3	71.1dB
LDN	75.4dB	CNEL	75.9dB	Pa2Sec	0.0		
L90	55.7dB	L10	71.1dB	L95	53.6dB	L50	64.2dB

LOGGING (3 MIN) LEQ LMAX LPK L10 L90

22:52:10	55.3dB	62.8dB	79.1dB	57.8dB	51.0dB
22:55:10	55.6dB	66.1dB	80.8dB	59.0dB	49.8dB
22:58:10	55.1dB	62.4dB	78.1dB	54.5dB	48.6dB
23:01:10	54.9dB	63.0dB	77.2dB	54.1dB	50.0dB
23:04:10	56.0dB	66.7dB	85.8dB	53.4dB	50.2dB
23:07:10	54.8dB	66.5dB	79.8dB	52.9dB	49.8dB
23:10:10	55.9dB	65.7dB	78.8dB	52.6dB	50.5dB
23:13:10	55.9dB	66.5dB	85.5dB	51.9dB	47.6dB
23:16:10	54.7dB	65.7dB	87.6dB	52.5dB	48.0dB
23:19:10	54.7dB	60.4dB	78.3dB	51.5dB	47.2dB

NOTES:

Sample ID No : N1-4
Environment : Night time
Frequency of Sampling : 1 st. Sampling
Sampling Location : KESAS HIGHWAY (After Barrier)
Sampling Duration : 30 Minutes

Meter Calibration: 114.0dB 7-SEP-98 @ 22:09:11

Calibrator:
Serial Number _____ Calibration Date _____

Measuring Parameters:
Range 40- 100dB Weighting A Time Constant FAST
Threshold OFF Exchange Rate 3dB Peak Weighting A

Session Started Session Stopped Run Time
8-SEP-98 @ 22:00:13 8-SEP-98 @ 22:30:13 00:30:00
Peak Level 85.8dB 8-SEP-98 @ 22:27:58
Max Level 70.1dB 8-SEP-98 @ 22:23:57
Min Level 44.4dB 8-SEP-98 @ 22:12:09
Overload 0.00%

LEQ 55.8dB SEL(3) 88.3dB TWA 43.8dB TAKM3 58.4dB
LDN 55.8dB CNEL 60.8dB Pa2Sec 0.0
L90 51.2dB L10 58.2dB L95 50.2dB L50 55.0dB

LOGGING (3 MIN) LEQ LMAX LPK L10 L90

22:03:13	56.2dB	62.6dB	77.1dB	58.5dB	51.8dB
22:06:13	55.5dB	62.2dB	83.9dB	57.7dB	51.8dB
22:09:13	57.0dB	64.7dB	78.8dB	56.2dB	52.5dB
22:12:13	54.2dB	61.8dB	78.8dB	54.3dB	50.4dB
22:15:13	56.2dB	65.3dB	77.3dB	54.7dB	51.8dB
22:18:13	56.2dB	61.6dB	79.3dB	54.1dB	50.7dB
22:21:13	55.3dB	61.1dB	75.5dB	54.4dB	48.6dB
22:24:13	56.7dB	70.1dB	83.9dB	53.2dB	51.3dB
22:27:13	54.2dB	62.0dB	76.3dB	53.0dB	49.2dB
22:30:13	55.5dB	62.7dB	85.8dB	53.0dB	50.6dB

NOTES:

Sample ID No : N2-1
Environment : Day time
Frequency of Sampling : 1 st. Sampling
Sampling Location : KG. LEMBAH JAYA UTARA
Sampling Duration : 1 Hour

Measuring Parameters:
Range 40-100dB Weighting A Time Constant FAST
Threshold OFF Exchange Rate 3dB Peak Weighting A

Session Started	Session Stopped	Run Time
24-AUG-98 @ 12:30:38	24-AUG-98 @ 13:29:38	00:59:00
Peak Level 97.5dB	24-AUG-98 @ 13:05:05	
Max Level 89.2dB	24-AUG-98 @ 13:05:04	
Min Level 43.3dB	24-AUG-98 @ 12:55:58	
Overload 0.00%		

LEQ	61.6dB	SEL(3)	97.1dB	TWA	52.5dB	TAKM3	67.7dB
LDN	61.6dB	CNEL	61.6dB	Pa2Sec	2.0		
L90	45.0dB	L10	63.2dB	L95	44.6dB	L50	48.9dB

LOGGING (3 MIN) LEQ LMAX LPK L10 L90

12:33:38	53.9dB	72.2dB	84.0dB	55.0dB	44.6dB
12:36:38	56.5dB	70.8dB	85.2dB	60.6dB	44.8dB
12:39:38	59.1dB	78.2dB	91.0dB	47.1dB	44.7dB
12:42:38	61.8dB	81.2dB	91.7dB	48.3dB	44.8dB
12:45:38	56.7dB	80.6dB	93.6dB	45.8dB	44.6dB
12:48:38	56.0dB	71.9dB	86.0dB	46.5dB	44.7dB
12:51:38	56.6dB	74.9dB	87.6dB	45.3dB	44.5dB
12:54:38	59.8dB	78.8dB	91.3dB	46.7dB	44.5dB
12:57:38	58.3dB	77.0dB	92.5dB	44.9dB	44.1dB
13:00:38	62.1dB	84.0dB	94.8dB	45.6dB	44.7dB
13:03:38	63.8dB	80.6dB	87.5dB	44.9dB	44.1dB
13:06:38	69.8dB	89.2dB	97.5dB	45.6dB	44.9dB
13:09:38	62.5dB	82.7dB	94.2dB	44.9dB	44.1dB
13:12:38	60.4dB	74.8dB	91.0dB	45.6dB	44.9dB
13:15:38	54.6dB	72.2dB	88.8dB	44.9dB	44.1dB
13:18:38	57.5dB	75.8dB	86.6dB	45.7dB	44.8dB
13:21:38	60.2dB	77.5dB	89.8dB	44.9dB	44.1dB
13:24:38	62.4dB	80.4dB	94.5dB	45.6dB	44.8dB
13:27:38	62.9dB	77.1dB	93.3dB	44.9dB	44.1dB

NOTES:

Sample ID No : N2-2
Environment : Night time
Frequency of Sampling : 1 st. Sampling
Sampling Location : KG. LEMBAH JAYA UTARA
Sampling Duration : 1 Hour

Measuring Parameters:

Range 40- 100dB Weighting A Time Constant FAST
Threshold OFF Exchange Rate 3dB Peak Weighting A

Session Started	Session Stopped	Run Time
14-SEP-98 @ 22:41:12	14-SEP-98 @ 23:35:12	00:59:00
Peak Level 111.5dB	14-SEP-98 @ 23:32:12	
Max Level 80.4dB	14-SEP-98 @ 23:31:12	
Min Level 41.3dB	14-SEP-98 @ 23:21:12	
Overload 0.00%		

LEQ 56.8dB SEL(3) 90.1dB TWA 47.3dB TAKM3 66.8dB
LDN 56.2dB CNEL 61.4dB Pa2Sec 0.0
L90 40.7dB L10 48.3dB L95 44.3dB L50 48.1dB

LOGGING (3 MIN) LEQ LMAX LPK L10 L90

22:44:12	50.3dB	60.8dB	78.5dB	52.8dB	48.3dB
22:47:12	49.2dB	60.2dB	70.8dB	51.2dB	47.4dB
22:50:12	49.6dB	61.5dB	82.3dB	49.1dB	46.5dB
22:53:12	48.5dB	60.4dB	75.4dB	48.2dB	45.1dB
22:56:12	50.6dB	56.6dB	78.3dB	49.1dB	46.9dB
22:59:12	50.9dB	58.9dB	78.3dB	48.3dB	46.6dB
23:02:12	49.7dB	53.4dB	68.8dB	48.7dB	46.9B
23:05:12	55.8dB	74.6dB	92.7dB	47.4dB	45.9dB
23:08:12	47.3dB	58.5dB	77.6dB	47.5dB	45.8dB
23:11:12	50.3dB	62.4dB	89.2dB	46.9dB	44.9dB
23:14:12	47.9dB	56.9dB	70.1dB	46.6dB	44.2dB
23:17:12	49.9dB	63.2dB	82.6dB	46.2dB	44.5dB
23:20:12	48.0dB	61.2dB	77.5dB	45.8dB	43.8dB
23:23:12	48.4dB	60.4dB	74.8dB	45.5dB	43.8dB
23:26:12	49.9dB	79.5dB	110.3dB	45.4dB	43.8dB
23:29:12	53.7dB	79.5dB	108.6dB	45.6dB	44.2dB
23:32:12	60.9dB	80.9dB	111.5dB	45.4dB	44.0dB

NOTES:

Sample ID No : N3-1
Environment : Day time
Frequency of Sampling : 1 st. Sampling
Sampling Location : KG. SRI TANJUNG
Sampling Duration : 1 Hour

Measuring Parameters:

Range 30- 90dB Weighting A Time Constant FAST
Threshold OFF Exchange Rate 3dB Peak Weighting A

Session Started Session Stopped Run Time
24-AUG-98 @ 14:17:10 24-AUG-98 @ 15:16:10 00:59:00
Peak Level 101.5dB 24-AUG-98 @ 14:53:12
Max Level 81.7dB 24-AUG-98 @ 14:53:11
Min Level 43.7dB 24-AUG-98 @ 14:20:30
Overload 0.00%

LEQ 58.7dB SEL(3) 94.2dB TWA 49.6dB TAKM3 63.1dB
LDN 58.7dB CNEL 58.7dB Pa2Sec 1.0
L90 45.1dB L10 61.0dB L95 44.8dB L50 48.1dB

LOGGING (3 MIN) LEQ LMAX LPK L10 L90

14:20:10	54.6dB	68.9dB	79.3dB	59.3dB	45.0dB
14:23:10	59.0dB	75.4dB	92.4dB	61.9dB	44.6dB
14:26:10	55.0dB	68.2dB	82.1dB	47.0dB	44.7dB
14:29:10	59.5dB	76.8dB	88.7dB	48.5dB	44.6dB
14:32:10	58.6dB	77.1dB	89.5dB	46.4dB	44.9dB
14:35:10	56.1dB	71.2dB	82.6dB	46.5dB	44.6dB
14:38:10	57.5dB	73.2dB	86.2dB	45.7dB	44.5dB
14:41:10	61.4dB	74.9dB	89.5dB	46.1dB	44.5dB
14:44:10	60.8dB	77.4dB	91.1dB	46.0dB	44.5dB
14:47:10	59.2dB	73.6dB	85.8dB	46.3dB	44.5dB
14:50:10	59.5dB	75.0dB	99.8dB	46.0dB	44.8dB
14:53:10	59.2dB	77.2dB	96.1dB	46.0dB	44.5dB
14:56:10	60.8dB	81.7dB	101.5dB	45.6dB	44.7dB
14:59:10	57.0dB	76.5dB	89.0dB	45.6dB	44.5dB
15:02:10	57.9dB	73.1dB	83.9dB	45.4dB	44.7dB
15:05:10	58.1dB	74.9dB	86.8dB	45.6dB	44.5dB
15:08:10	52.0dB	64.9dB	78.4dB	45.2dB	44.5dB
15:11:10	55.1dB	73.9dB	85.8dB	45.6dB	44.5dB
15:14:10	58.6dB	75.6dB	88.1dB	45.2dB	44.7dB

NOTES:

Sample ID No : N3-2
Environment : Night time
Frequency of Sampling : 1 st. Sampling
Sampling Location : KG SRI TANJUNG
Sampling Duration : 1 Hour

Measuring Parameters:

Range 40- 100dB Weighting A Time Constant FAST
 Threshold OFF Exchange Rate 3dB Peak Weighting A

Session Started	Session Stopped	Run Time
28-SEP-98 @ 22:25:09	28-SEP-98 @ 23:25:09	00:59:00
Peak Level 98.7dB	28-SEP-98 @ 22:30:22	
Max Level 85.8dB	28-SEP-98 @ 23:18:38	
Min Level 42.4dB	28-SEP-98 @ 23:16:45	
Overload 0.00%		

LEQ 55.3dB SEL(3)100.8dB TWA 56.2dB TAKM3 70.0dB
 LDN 55.3dB CNEL 70.3dB Pa2Sec 0.0
 L90 57.1dB L10 63.5dB L95 57.0dB L50 60.1dB

LOGGING (3 MIN) LEQ LMAX LPK L10 L90

22:28:09	66.0dB	84.7dB	97.8dB	68.2dB	59.9dB
22:31:09	65.2dB	82.9dB	98.7dB	65.9dB	59.9dB
22:34:09	62.4dB	68.7dB	85.1dB	62.3dB	59.9dB
22:37:09	63.2dB	67.6dB	81.3dB	62.9dB	60.7dB
22:40:09	61.6dB	67.7dB	79.9dB	61.4dB	58.0dB
22:43:09	62.8dB	80.6dB	93.9dB	62.2dB	58.2dB
22:46:09	64.0dB	73.1dB	88.4dB	61.5dB	60.1dB
22:49:09	63.0dB	70.1dB	79.6dB	61.5dB	58.5dB
22:52:09	62.4dB	68.4dB	79.5dB	61.3dB	57.8dB
22:55:09	63.0dB	71.5dB	81.3dB	61.4dB	58.8dB
22:58:09	66.3dB	77.1dB	91.0dB	61.5dB	59.4dB
23:01:09	63.1dB	76.8dB	88.5dB	61.1dB	58.1dB
23:04:09	63.6dB	71.1dB	79.7dB	61.3dB	58.9dB
23:07:09	62.7dB	69.9dB	80.5dB	60.2dB	56.5dB
23:10:09	65.6dB	74.9dB	86.0dB	61.1dB	55.3dB
23:13:09	70.2dB	77.3dB	89.1dB	60.3dB	60.3dB
23:16:09	66.5dB	77.2.4dB	84.9dB	61.5dB	56.8dB
23:19:09	67.4dB	85.8dB	87.8dB	61.6dB	53.4 dB
23:22:09	65.8dB	72.9dB	84.1dB	60.5dB	53.7dB

NOTES:

Sample ID No : N4-1
Environment : Day time
Frequency of Sampling : 1 st. Sampling
Sampling Location : JALAN PUCHONG
Sampling Duration : 1 Hour

Measuring Parameters:

Range 30- 90dB Weighting A Time Constant FAST
Threshold OFF Exchange Rate 3dB Peak Weighting A

Session Started Session Stopped Run Time
24-AUG-98 @ 15:36:20 24-AUG-98 @ 16:35:20 00:59:00
Peak Level 109.4dB 24-AUG-98 @ 16:19:26
Max Level 88.0dB 24-AUG-98 @ 16:13:36
Min Level 44.0dB 24-AUG-98 @ 15:54:16
Overload 0.00%

LEQ 68.7dB SEL(3) 104.2dB TWA 59.6dB TAKM3 72.6dB
LDN 68.7dB CNEL 68.7dB Pa2Sec 10.5
L90 55.2dB L10 71.4dB L95 52.5dB L50 64.9dB

LOGGING (3 MIN) LEQ LMAX LPK L10 L90
Study 7

15:39:20	67.5dB	79.9dB	95.9dB	70.7dB	56.7dB
15:42:20	66.9dB	83.5dB	97.8dB	69.8dB	51.6dB
15:45:20	68.1dB	83.2dB	95.7dB	65.3dB	54.7dB
15:48:20	67.2dB	79.8dB	92.7dB	64.1dB	51.0dB
15:51:20	67.2dB	82.2dB	98.3dB	62.8dB	52.5dB
15:54:20	68.4dB	80.7dB	104.7dB	60.5dB	50.2dB
15:57:20	66.4dB	78.5dB	89.8dB	62.2dB	52.9dB
16:00:20	68.2dB	79.8dB	96.7dB	58.9dB	53.4dB
16:03:20	67.3dB	81.1dB	92.2dB	59.3dB	52.0dB
16:06:20	68.5dB	83.2dB	99.8dB	58.4dB	51.2dB
16:09:20	68.3dB	82.3dB	99.1dB	58.4dB	52.6dB
16:12:20	68.2dB	80.8dB	102.2dB	57.4dB	56.4dB
16:15:20	71.9dB	88.0dB	103.9dB	62.5dB	54.2dB
16:18:20	65.6dB	77.1dB	90.8dB	58.7dB	51.2dB
16:21:20	70.8dB	86.7dB	109.4dB	60.9dB	54.1dB
16:24:20	69.4dB	81.3dB	95.9dB	59.1dB	57.2dB
16:27:20	66.8dB	79.5dB	94.3dB	62.2dB	53.6dB
16:30:20	71.9dB	85.7dB	107.5dB	59.0dB	55.4dB
16:33:20	70.6dB	87.9dB	107.8dB	62.8dB	53.7dB

NOTES:

Sample ID No : N4-2
 Environment : Night time
 Frequency of Sampling : 1 st. Sampling
 Sampling Location : JALAN PUCHONG,
 Sampling Duration : 1 Hour

Measuring Parameters:

Range 50- 110dB Weighting A Time Constant FAST
 Threshold OFF Exchange Rate 3dB Peak Weighting A

Session Started Session Stopped Run Time
 21-SEP-98 @ 21:47:09 21-SEP-98 @22:46:09 00:59:00
 Peak Level 104.2dB 21-SEP-98 @ 22:15:13
 Max Level 78.1dB 21-SEP-98 @ 22:41:11
 Min Level 45.1dB 21-SEP-98 @ 22:45:49
 Overload 0.00%

LEQ 56.1dB SEL(3) 91.6dB TWA 47.0dB TAKM3 60.2dB
 LDN 56.1dB CNEL 56.1dB Pa2Sec 0.0
 L90 49.3dB L10 58.3dB L95 48.5dB L50 52.7dB

LOGGING (3 MIN) LEQ LMAX LPK L10 L90

21:50:09	59.0dB	73.3dB	90.6dB	63.2dB	51.2dB
21:53:09	61.0dB	73.1dB	87.8dB	65.7dB	50.3dB
21:56:09	59.0dB	69.0dB	90.6dB	54.5dB	50.6dB
21:59:09	53.1dB	61.4dB	80.4dB	53.2B	48.8dB
22:02:09	52.8dB	61.5dB	77.3dB	52.4B	49.6dB
22:05:09	53.7dB	63.6dB	78.6dB	51.5dB	49.1dB
22:08:09	54.6dB	67.8dB	85.8dB	51.1dB	48.8B
22:11:09	55.8dB	67.1dB	87.4dB	51.7dB	49.5dB
22:14:09	56.9dB	73.8dB	95.0dB	50.9dB	47.4dB
22:17:09	54.9dB	76.7dB	104.2dB	50.8dB	48.9dB
22:20:09	54.3dB	64.3dB	83.1dB	51.0dB	48.0dB
22:23:09	55.5dB	69.5dB	91.6B	50.7dB	48.8dB
22:26:09	54.7dB	64.2dB	86.6dB	50.3dB	48.1dB
22:29:09	54.2dB	67.2dB	93.4dB	50.4dB	48.1dB
22:32:09	54.0dB	65.3dB	84.9dB	50.8dB	48.2dB
22:35:09	54.0dB	65.5dB	88.9dB	50.2dB	48.2dB
22:38:09	55.7dB	72.9dB	92.0dB	50.1dB	47.7dB
22:41:09	53.9dB	63.4dB	90.2dB	50.2dB	48.2dB
22:44:09	58.0dB	78.1dB	99.1dB	49.9dB	49.8dB

NOTES:

Sample ID No : N5-1
Environment : Day time
Frequency of Sampling : 1 st. Sampling
Sampling Location : JALAN ENGGANG
Sampling Duration : 1 Hour

Measuring Parameters:

Range 40-100dB Weighting A Time Constant FAST
Threshold OFF Exchange Rate 3dB Peak Weighting A

Session Started Session Stopped Run Time
24-AUG-98 @ 17:01:28 24-AUG-98 @ 18:00:28 00:59:00
Peak Level 111.8dB 24-AUG-98 @ 17:40:13
Max Level 94.6dB 24-AUG-98 @ 17:40:12
Min Level 52.4dB 24-AUG-98 @ 17:50:28
Overload 0.00%

LEQ 73.9dB SEL(3) 109.4dB TWA 64.8dB TAKM3 77.6dB
LDN 73.9dB CNEL 73.9dB Pa2Sec 35.0
L90 64.8dB L10 76.6dB L95 62.8dB L50 70.5dB

LOGGING (3 MIN) LEQ LMAX LPK L10 L90

17:04:28	75.7dB	92.2dB	110.7dB	76.1dB	65.0dB
17:07:28	73.0dB	88.4dB	107.1dB	76.2dB	64.0dB
17:10:28	74.4dB	93.5dB	111.6dB	69.8dB	60.8dB
17:13:28	72.2dB	80.7dB	95.8dB	69.3dB	64.8dB
17:16:28	71.8dB	85.2dB	100.6dB	67.6dB	62.7dB
17:19:28	75.8dB	89.5dB	107.3dB	68.6dB	64.5dB
17:22:28	71.0dB	85.2dB	98.5dB	67.0dB	62.3dB
17:25:28	73.8dB	89.5dB	105.2dB	67.9dB	62.5dB
17:28:28	71.6dB	86.1dB	102.9dB	66.2dB	63.6dB
17:31:28	75.8dB	94.2dB	111.7dB	67.4dB	61.6dB
17:34:28	74.4dB	89.1dB	105.1dB	66.0dB	64.7dB
17:37:28	74.3dB	88.9dB	105.6dB	66.8dB	65.1dB
17:40:28	76.1dB	94.6dB	111.8dB	66.8dB	63.8dB
17:43:28	71.9dB	82.8dB	100.8dB	67.0dB	63.8dB
17:46:28	73.4dB	86.6dB	100.9dB	66.6dB	63.5dB
17:49:28	74.3dB	87.1dB	103.2dB	66.9dB	62.8dB
17:52:28	72.2dB	84.6dB	101.0dB	66.3dB	63.3dB
17:55:28	71.8dB	80.6dB	100.1dB	66.8dB	64.9dB
17:58:28	74.6dB	83.7dB	103.4dB	68.3dB	67.1dB

NOTES:

Sample ID No : N5-2
Environment : Night time
Frequency of Sampling : 1st. Sampling
Sampling Location : JALAN ENGGANG
Sampling Duration : 1 Hour

Measuring Parameters:

Range 40- 100dB Weighting A Time Constant FAST
Threshold OFF Exchange Rate 3dB Peak Weighting A

Session Started	Session Stopped	Run Time
21-SEP-98 @ 22:58:32	21-SEP-98 @ 23:57:32	00:59:00
Peak Level 104.1dB	21-SEP-98 @ 23:15:43	
Max Level 79.3dB	21-SEP-98 @ 23:08:03	
Min Level 45.3dB	21-SEP-98 @ 22:58:39	
Overload 0.00%		

LEQ 58.1dB SEL(3) 93.6dB TWA 49.0dB TAKM3 61.2dB
LDN 68.1dB CNEL 68.1dB Pa2Sec 0.0
L90 52.2dB L10 59.7dB L95 50.3dB L50 56.7dB

LOGGING (3 MIN) LEQ LMAX LPK L10 L90

23:01:32	55.5dB	65.9dB	88.4dB	59.3dB	48.4dB
23:04:32	60.4dB	79.0dB	102.6dB	57.5dB	48.6dB
23:07:32	53.2dB	62.4dB	76.0dB	52.2dB	47.9dB
23:10:32	57.8dB	79.3dB	93.2dB	52.9dB	50.2dB
23:13:32	56.0dB	65.4dB	94.1dB	51.6dB	49.2dB
23:16:32	58.0dB	72.9dB	104.1dB	53.2dB	52.5dB
23:19:32	57.5dB	64.0dB	79.4dB	53.3dB	52.9dB
23:22:32	57.9dB	65.7dB	91.3dB	52.9dB	53.3dB
23:25:32	57.5dB	63.0dB	84.9dB	53.3dB	52.9dB
23:28:32	56.7dB	65.3dB	80.0dB	52.9dB	53.3dB
23:31:32	59.4dB	78.7dB	92.0dB	53.3dB	52.9dB
23:34:32	57.1dB	65.0dB	82.7dB	52.9dB	53.3dB
23:37:32	58.8dB	70.7dB	85.6dB	53.3dB	52.9dB
23:40:32	60.1dB	73.8dB	87.8dB	52.9dB	53.3dB
23:43:32	59.4dB	68.0dB	82.8dB	53.3dB	52.9dB
23:46:32	59.2dB	65.9dB	82.4dB	52.9dB	53.3dB
23:49:32	59.0dB	67.1dB	87.6dB	53.3dB	52.9dB
23:52:32	57.3dB	62.6dB	83.3dB	52.9dB	53.3dB
23:55:32	57.5dB	65.9dB	79.3dB	53.3dB	52.9dB

NOTES:

Sample ID No : N1-1
Environment : Day time
Frequency of Sampling : 2 nd. Sampling
Sampling Location : KESAS HIGHWAY (Before Barrier)
Sampling Duration : 30 Minutes

Measuring Parameters:

Range 40-100dB Weighting A Time Constant FAST
Threshold OFF Exchange Rate 3dB Peak Weighting A

Session Started	Session Stopped	Run Time
27-AUG-98 @ 9:45:53	27-AUG-98 @ 10:15:54	00:30:00
Peak Level 108.0dB	27-AUG-98 @ 10:03:25	
Max Level 91.4dB	27-AUG-98 @ 9:53:22	
Min Level 64.8dB	27-AUG-98 @ 9:51:46	
Overload 0.00%		

LEQ	78.6dB	SEL(3)	111.2dB	TWA	66.6dB	TAKM3	80.9dB
LDN	78.6dB	CNEL	78.6dB	Pa2Sec	52.8		
L90	73.3dB	L10	81.5dB	L95	71.8dB	L50	77.3dB

LOGGING (3 MIN) LEQ LMAX LPK L10 L90

09:48:53	79.1dB	88.8dB	100.6dB	81.9dB	74.2dB
09:51:53	77.3dB	85.0dB	96.8dB	80.0dB	70.9dB
09:54:53	79.4dB	91.4dB	103.2dB	78.0dB	73.9dB
09:57:53	79.1dB	91.4dB	101.8dB	76.9dB	72.0dB
10:00:53	78.3dB	84.9dB	98.4dB	76.4dB	72.8dB
10:03:53	78.5dB	88.5dB	108.0dB	76.2dB	73.8dB
10:06:53	78.6dB	86.5dB	102.1dB	75.9dB	73.5dB
10:09:53	78.6dB	87.6dB	99.0dB	75.7dB	72.8dB
10:12:53	79.2dB	88.6dB	99.8dB	75.6dB	73.3dB
10:15:53	78.3dB	88.1dB	102.0dB	75.3dB	71.1dB

NOTES:

Sample ID No : N1-2
Environment : Night time
Frequency of Sampling : 2nd. Sampling
Sampling Location : KESAS HIGHWAY (Before Barrier)
Sampling Duration : 30 Minutes

Measuring Parameters:
Range 50- 110dB Weighting A Time Constant FAST
Threshold OFF Exchange Rate 3dB Peak Weighting A

Session Started Session Stopped Run Time
10-SEP-98 @ 21:19:06 10-SEP-98 @ 21:49:06 00:30:00
Peak Level 96.6dB 10-SEP-98 @ 21:24:37
Max Level 79.4dB 10-SEP-98 @ 21:45:00
Min Level 41.6dB 10-SEP-98 @ 21:22:47
Overload 0.00%

LEQ 64.5dB SEL(3) 97.0dB TWA 52.4dB TAKM3 68.3dB
LDN 64.5dB CNEL 69.5dB Pa2Sec 0.0
L90 48.4dB L10 69.3dB L95 46.2dB L50 57.7dB

LOGGING (3 MIN) LEQ LMAX LPK L10 L90

21:22:06	65.6dB	79.0dB	93.8dB	70.1dB	48.7dB
21:25:06	62.3dB	78.2dB	96.6dB	65.9dB	41.8dB
21:28:06	66.6dB	77.8dB	92.3dB	61.0dB	50.1dB
21:31:06	64.7dB	74.6dB	89.8dB	55.8dB	44.1dB
21:34:06	61.3dB	77.1dB	92.8dB	54.9dB	47.1dB
21:37:06	63.6dB	74.5dB	88.2dB	53.1dB	43.5dB
21:40:06	64.3dB	76.3dB	90.9B	54.4dB	48.0dB
21:43:06	62.5dB	73.7dB	90.1dB	52.4dB	46.9dB
21:46:06	65.1dB	79.4dB	94.0dB	53.7dB	49.1dB
21:49:06	65.6dB	76.5dB	92.4dB	52.2dB	45.5dB

NOTES:

Sample ID No : N1-3
Environment : Day time
Frequency of Sampling : 2 nd. Sampling
Sampling Location : KESAS HIGHWAY (After Barrier)
Sampling Duration : 30 Minutes

Measuring Parameters:

Range 40-100dB Weighting A Time Constant FAST
Threshold OFF Exchange Rate 3dB Peak Weighting A

Session Started Session Stopped Run Time
27-AUG-98 @ 9:09:02 27-AUG-98 @ 9:39:02 00:30:00
Peak Level 97.7dB 27-AUG-98 @ 9:09:22
Max Level 77.8dB 27-AUG-98 @ 9:10:06
Min Level 55.6dB 27-AUG-98 @ 9:23:14
Overload 0.00%

LEQ 66.0dB SEL(3) 98.5dB TWA 54.0dB TAKM3 67.7dB
LDN 66.0dB CNEL 66.0dB Pa2Sec 2.8
L90 62.0dB L10 68.4dB L95 61.1dB L50 64.9dB

LOGGING (3 MIN) LEQ LMAX LPK L10 L90

09:12:02	66.9dB	77.8dB	97.7dB	68.4dB	63.2dB
09:15:02	67.2dB	77.8dB	88.8dB	69.3dB	63.0dB
09:18:02	66.4dB	76.5dB	93.6dB	65.4dB	62.3dB
09:21:02	66.2dB	73.0dB	89.1dB	65.7dB	62.4dB
09:24:02	65.5dB	75.8dB	88.4dB	64.5dB	60.0dB
09:27:02	65.3dB	74.2dB	85.3dB	64.1dB	61.1dB
09:30:02	65.6dB	74.4dB	85.4dB	63.9dB	61.2dB
09:33:02	64.2dB	68.7dB	82.2dB	63.5dB	61.5dB
09:36:02	66.5dB	75.8dB	86.8dB	63.5dB	61.4dB
09:39:02	65.7dB	71.9dB	92.5dB	63.3dB	61.4dB

NOTES:

Sample ID No : N1-4
Environment : Night time
Frequency of Sampling : 2 nd. Sampling
Sampling Location : KESAS HIGHWAY (After Barrier)
Sampling Duration : 30 Minutes

Measuring Parameters:

Range 40- 100dB Weighting A Time Constant FAST
Threshold OFF Exchange Rate 3dB Peak Weighting A

Session Started Session Stopped Run Time
10-SEP-98 @ 22:20:58 10-SEP-98 @ 22:50:58 00:30:00
Peak Level 92.7dB 10-SEP-98 @ 22:29:07
Max Level 72.6dB 10-SEP-98 @ 22:29:06
Min Level 43.7dB 10-SEP-98 @ 22:39:03
Overload 0.00%

LEQ 55.4dB SEL(3) 87.9dB TWA 43.3dB TAKM3 58.3dB
LDN 55.4dB CNEL 60.4dB Pa2Sec 0.0
L90 51.3dB L10 57.8dB L95 50.4dB L50 54.5dB

LOGGING (3 MIN) LEQ LMAX LPK L10 L90

22:23:58	54.7dB	58.9dB	78.1dB	56.4dB	52.1dB
22:26:58	55.1dB	62.1dB	75.5dB	57.1dB	52.7dB
22:29:58	55.4dB	72.6dB	92.7dB	54.7dB	50.4dB
22:32:58	55.8dB	69.5dB	88.5dB	54.5dB	50.8dB
22:35:58	54.7dB	60.9dB	76.3dB	53.7dB	50.5dB
22:38:58	54.6dB	61.6dB	75.9dB	53.3dB	50.6dB
22:41:58	55.3dB	61.6dB	77.2dB	53.0dB	50.5dB
22:44:58	55.2dB	60.8dB	76.4dB	52.9dB	51.8dB
22:47:58	56.5dB	65.4dB	79.2dB	53.7dB	50.4dB
22:50:58	56.1dB	70.0dB	87.0dB	52.7dB	50.8dB

NOTES:

Sample ID No : N2-1
Environment : Day time
Frequency of Sampling : 2 nd. Sampling
Sampling Location : KG. LEMBAH JAYA UTARA
Sampling Duration : 1 Hour

Measuring Parameters:

Range 40- 100dB Weighting A Time Constant FAST
Threshold OFF Exchange Rate 3dB Peak Weighting A

Session Started Session Stopped Run Time
27-AUG-98 @ 11:57:16 27-AUG-98 @ 12:56:16 00:59:00
Peak Level 113.8dB 27-AUG-98 @ 12:45:48
Max Level 99.9dB 27-AUG-98 @ 12:45:47
Min Level 46.3dB 27-AUG-98 @ 11:59:09
Overload 0.00%

LEQ 68.7dB SEL(3) 104.2dB TWA 59.6dB TAKM3 73.2dB
LDN 68.7dB CNEL 68.7dB Pa2Sec 10.6
L90 49.5dB L10 67.0dB L95 49.0dB L50 53.9dB

LOGGING (3 MIN) LEQ LMAX LPK L10 L90
Study 13

12:00:16	62.0dB	82.2dB	94.2dB	63.5dB	49.0dB
12:03:16	59.7dB	78.5dB	94.8dB	60.7dB	49.4dB
12:06:16	67.8dB	87.8dB	104.9dB	53.3dB	50.0dB
12:09:16	68.5dB	84.2dB	96.0dB	52.5dB	49.4dB
12:12:16	60.7dB	78.5dB	92.0dB	50.9dB	48.6dB
12:15:16	63.9dB	79.4dB	90.8dB	50.8dB	48.9dB
12:18:16	70.5dB	91.2dB	104.6dB	52.7dB	49.2dB
12:21:16	64.6dB	82.2dB	105.1dB	51.8dB	49.2dB
12:24:16	64.9dB	82.2dB	94.4dB	50.6dB	48.6dB
12:27:16	62.2dB	79.1dB	93.4dB	50.4dB	48.5dB
12:30:16	63.0dB	80.5dB	92.0dB	50.4dB	49.0dB
12:33:16	70.3dB	91.6dB	109.4dB	50.5dB	49.2dB
12:36:16	64.1dB	82.5dB	98.6dB	50.2dB	49.1dB
12:39:16	59.8dB	74.8dB	93.3dB	50.0dB	49.2dB
12:42:16	65.5dB	81.1dB	99.2dB	50.1dB	49.3dB
12:45:16	63.3dB	78.5dB	96.0dB	49.8dB	48.6dB
12:48:16	78.9dB	99.9dB	113.8dB	50.0dB	49.4dB
12:51:16	67.0dB	86.2dB	98.1dB	50.0dB	49.2dB
12:54:16	67.0dB	81.2dB	101.3dB	52.6dB	49.6dB

NOTES:

Sample ID No : N2-2
Environment : Night time
Frequency of Sampling : 2 nd. Sampling
Sampling Location : KG. LEMBAH JAYA UTARA
Sampling Duration : 1 Hour

Measuring Parameters:

Range 40- 100dB Weighting A Time Constant FAST
Threshold OFF Exchange Rate 3dB Peak Weighting A

Session Started Session Stopped Run Time
17-SEP-98 @ 22:45:57 17-SEP-98 @23:39:57 00:59:00
Peak Level 116.5dB 17-SEP-98 @ 23:35:52
Max Level 85.9dB 17-SEP-98 @ 23:33:57
Min Level 41.5dB 17-SEP-98 @ 23:24:57
Overload 0.00%

LEQ 61.5dB SEL(3) 96.6dB TWA 52.0dB TAKM3 71.2dB
LDN 61.5dB CNEL 66.5dB Pa2Sec 0.0
L90 41.5dB L10 58.1dB L95 49.4dB L50 53.4dB

LOGGING (3 MIN) LEQ LMAX LPK L10 L90

22:48:09	55.6dB	65.8dB	83.5dB	57.8dB	53.3dB
22:51:09	54.6dB	65.2dB	75.8dB	56.2dB	52.4dB
22:54:09	54.6dB	66.5dB	87.3dB	54.1dB	51.5dB
22:57:09	53.9dB	65.4dB	80.4dB	53.2dB	50.1dB
23:00:09	55.9dB	61.6dB	83.3dB	54.1dB	51.9dB
23:03:09	55.8dB	63.9dB	83.3dB	53.3dB	51.6dB
23:06:09	54.4dB	58.4dB	73.8dB	53.7dB	51.9B
23:09:09	60.2dB	79.6dB	97.7dB	52.4dB	50.9dB
23:12:09	52.4dB	63.5dB	82.6dB	52.5dB	50.8dB
23:15:09	55.3dB	67.4dB	94.2dB	51.9dB	49.9dB
23:18:09	52.9dB	61.9dB	75.1dB	51.6dB	49.2dB
23:21:09	54.9dB	68.2dB	87.6dB	51.2dB	49.5dB
23:24:09	53.0dB	66.2dB	82.5dB	50.8dB	48.8dB
23:27:09	53.4dB	65.4dB	79.8dB	50.5dB	48.8dB
23:30:09	54.9dB	84.5dB	115.3dB	50.4dB	48.8dB
23:33:09	58.7dB	84.5dB	113.6dB	50.6dB	49.2dB
23:36:09	65.9dB	85.9dB	116.5dB	50.4dB	49.0dB

NOTES:

Sample ID No : N3-1
Environment : Day time
Frequency of Sampling : 2 nd. Sampling
Sampling Location : KG. SRI TANJUNG
Sampling Duration : 1 Hour

Measuring Parameters:

Range 40- 100dB Weighting A Time Constant FAST
Threshold OFF Exchange Rate 3dB Peak Weighting A

Session Started	Session Stopped	Run Time
27-AUG-98 @ 13:12:57	27-AUG-98 @ 14:11:57	00:59:00
Peak Level 107.7dB	27-AUG-98 @ 13:32:32	
Max Level 92.4dB	27-AUG-98 @ 13:32:31	
Min Level 42.9dB	27-AUG-98 @ 13:19:13	
Overload 0.00%		

LEQ	65.0dB	SEL(3)	100.5dB	TWA	55.9dB	TAKM3	70.5dB
LDN	65.0dB	CNEL	65.0dB	Pa2Sec	4.5		
L90	47.3dB	L10	66.6dB	L95	46.3dB	L50	52.4dB

LOGGING (3 MIN) LEQ LMAX LPK L10 L90

13:15:57	66.7dB	84.4dB	101.5dB	69.2dB	46.4dB
13:18:57	66.8dB	87.0dB	100.1dB	66.2dB	46.0dB
13:21:57	58.4dB	76.6dB	92.0dB	48.8dB	44.5dB
13:24:57	62.4dB	86.5dB	102.6dB	50.4dB	46.5dB
13:27:57	66.1dB	82.2dB	105.2dB	48.9dB	45.0dB
13:30:57	64.7dB	79.8dB	93.9dB	50.1dB	47.9dB
13:33:57	70.5dB	92.4dB	107.7dB	48.4dB	45.0dB
13:36:57	62.9dB	82.3dB	95.5dB	49.7dB	48.4dB
13:39:57	60.2dB	72.0dB	84.5dB	48.6dB	45.0dB
13:42:57	62.1dB	76.2dB	92.9dB	49.2dB	46.5dB
13:45:57	59.8dB	73.2dB	90.8dB	48.8dB	45.0dB
13:48:57	65.0dB	81.0dB	93.9dB	51.2dB	50.3dB
13:51:57	59.6dB	77.3dB	88.5dB	47.7dB	45.0dB
13:54:57	62.1dB	78.2dB	92.2dB	48.5dB	46.3dB
13:57:57	63.3dB	82.3dB	94.4dB	47.7dB	45.0dB
14:00:57	58.1dB	69.8dB	83.8dB	48.0dB	46.1dB
14:03:57	65.3dB	83.0dB	102.1dB	48.2dB	45.0dB
14:06:57	64.4dB	80.6dB	93.2dB	47.7dB	47.2dB
14:09:57	71.0dB	91.9dB	104.9dB	47.8dB	45.0dB

QUEST TECHNOLOGIES
1900 INTEGRATING/LOGGING SOUND LEVEL METER

Unit Version Number: 01.6

Serial Number:

NOTES:

Sample ID No : N3-2
Environment : Night time
Frequency of Sampling : 2 nd. Sampling
Sampling Location : KG SRI TANJUNG
Sampling Duration : 1 Hour

Meter Calibration: 114.0dB 2-SEP-98 @ 04:09:11

Calibrator:

Serial Number _____ Calibration Date _____

Measuring Parameters:

Range 40- 100dB Weighting A Time Constant FAST
 Threshold OFF Exchange Rate 3dB Peak Weighting A

Session Started Session Stopped Run Time
 3-SEP-98 @ 22:28:03 3-SEP-98 @ 23:27:03 00:59:00
 Peak Level 101.7dB 3-SEP-98 @ 22:33:25
 Max Level 88.8dB 3-SEP-98 @ 23:21:41
 Min Level 45.4dB 3-SEP-98 @ 23:19:48
 Overload 0.00%

LEQ 68.3dB SEL(3) 103.8dB TWA 59.2dB TAKM3 73.0dB
 LDN 68.3dB CNEL 73.3dB Pa2Sec 0.0
 L90 62.1dB L10 71.5dB L95 60.0dB L50 66.1dB

LOGGING (3 MIN) LEQ LMAX LPK L10 L90

22:31:03	69.0dB	87.7dB	100.8dB	71.2dB	62.9dB
22:34:03	68.2dB	85.9dB	101.7dB	68.9dB	62.9dB
22:37:03	65.4dB	71.7dB	87.1dB	65.3dB	62.9dB
22:40:03	66.2dB	70.6dB	84.3dB	65.9dB	63.7dB
22:43:03	64.6dB	70.7dB	82.9dB	64.4dB	61.0dB
22:46:03	65.8dB	83.6dB	96.9dB	65.2dB	61.2dB
22:49:03	67.0dB	76.1dB	91.4dB	64.5dB	63.1dB
22:52:03	66.0dB	73.1dB	82.6dB	64.5dB	61.5dB
22:55:03	65.4dB	71.4dB	82.5dB	64.3dB	60.8dB
22:58:03	66.0dB	74.5dB	84.3dB	64.4dB	61.8dB
23:01:03	69.3dB	80.1dB	94.0dB	64.5dB	62.4dB
23:04:03	66.1dB	79.8dB	91.5dB	64.1dB	61.1dB
23:07:03	66.6dB	74.1dB	82.7dB	64.3dB	61.9dB
23:10:03	65.7dB	72.9dB	83.5dB	63.2dB	59.5dB
23:13:03	68.6dB	77.9dB	89.0dB	64.1dB	58.3dB
23:16:03	73.2dB	80.3dB	92.1dB	63.3dB	63.3dB
23:19:03	69.5dB	75.4dB	87.9dB	64.5dB	59.8dB
23:22:03	70.4dB	88.8dB	100.8dB	64.6dB	56.4 dB
23:25:03	68.8dB	75.9dB	87.1dB	63.5dB	56.7dB

NOTES:

Sample ID No : N4-1
Environment : Day time
Frequency of Sampling : 2 nd. Sampling
Sampling Location : JALAN PUCHONG.
Sampling Duration : 1 Hour

Measuring Parameters:

Range 40-100dB Weighting A Time Constant FAST
Threshold OFF Exchange Rate 3dB Peak Weighting A

Session Started Session Stopped Run Time
27-AUG-98 @ 15:32:30 27-AUG-98 @ 16:31:30 00:59:00
Peak Level 121.2dB 27-AUG-98 @ 16:21:50
Max Level 98.2dB 27-AUG-98 @ 16:21:49
Min Level 48.8dB 27-AUG-98 @ 16:29:24
Overload 0.00%

LEQ 74.8dB SEL(3) 110.3dB TWA 65.7dB TAKM3 78.4dB
LDN 74.8dB CNEL 74.8dB Pa2Sec 42.8
L90 62.5dB L10 77.7dB L95 59.4dB L50 71.8dB

LOGGING (3 MIN) LEQ LMAX LPK L10 L90

15:35:30	76.6dB	94.7dB	107.1dB	79.4dB	61.5dB
15:38:30	73.4dB	82.3dB	99.4dB	77.5dB	59.7dB
15:41:30	76.5dB	90.7dB	114.3dB	72.5dB	60.7dB
15:44:30	75.5dB	83.8dB	98.0dB	72.8dB	60.7dB
15:47:30	74.9dB	82.6dB	96.7dB	70.1dB	60.5dB
15:50:30	73.8dB	81.8dB	100.7dB	67.7dB	58.3dB
15:53:30	73.4dB	83.4dB	99.0dB	69.5dB	59.9dB
15:56:30	74.3dB	82.6dB	94.9dB	68.1dB	57.8dB
15:59:30	74.4dB	84.3dB	97.3dB	67.0dB	59.7dB
16:02:30	73.8dB	82.5dB	98.1dB	68.9dB	60.2dB
16:05:30	73.3dB	86.6dB	106.8dB	66.6dB	58.3dB
16:08:30	73.6dB	87.2dB	106.8dB	67.2dB	58.3dB
16:11:30	72.8dB	87.9dB	102.9dB	66.4dB	57.1dB
16:14:30	75.0dB	90.6dB	110.7dB	66.2dB	58.8dB
16:17:30	73.6dB	80.6dB	98.3dB	66.9dB	62.5dB
16:20:30	74.0dB	87.7dB	110.5dB	68.5dB	61.7dB
16:23:30	79.6dB	98.2dB	121.2dB	67.1dB	65.0dB
16:26:30	74.0dB	88.8dB	107.2dB	66.4dB	60.9dB
16:29:30	72.0dB	83.2dB	105.6dB	63.1dB	58.0dB

QUEST TECHNOLOGIES
1900 INTEGRATING/LOGGING SOUND LEVEL METER

Unit Version Number: 01.6

Serial Number:

NOTES:

Sample ID No : N4-2
Environment : Night time
Frequency of Sampling : 2 nd. Sampling
Sampling Location : JALAN PUCHONG
Sampling Duration : 1 Hour

Meter Calibration: 114.0dB 2-SEP-98 @ 04:09:11

Calibrator:

Serial Number _____ Calibration Date _____

Measuring Parameters:

Range 40- 100dB Weighting A Time Constant FAST
Threshold OFF Exchange Rate 3dB Peak Weighting A

Session Started	Session Stopped	Run Time
3-SEP-98 @ 23:01:13	4-SEP-98 @ 00:00:13	00:59:00
Peak Level 112.7dB	3-SEP-98 @ 23:20:58	
Max Level 91.9dB	3-SEP-98 @ 23:20:57	
Min Level 42.4dB	3-SEP-98 @ 23:59:35	
Overload 0.00%		

LEQ 63.4dB SEL(3) 98.9dB TWA 54.3dB TAKM3 69.0dB
LDN 73.4dB CNEL 73.4dB Pa2Sec 0.3
L90 46.2dB L10 63.2dB L95 45.7dB L50 50.2dB

LOGGING (3 MIN) LEQ LMAX LPK L10 L90

23:02:13	73.7dB	90.7dB	110.0dB	73.8dB	47.8dB
23:05:13	50.7dB	59.2dB	70.4dB	52.1dB	46.5dB
23:08:13	59.9dB	73.3dB	85.8dB	64.0dB	46.9dB
23:11:13	60.2dB	70.6dB	83.0dB	65.3dB	49.3dB
23:14:13	56.4dB	70.6dB	93.0dB	54.0dB	46.5dB
23:17:13	51.1dB	64.5dB	78.4dB	51.5dB	46.5dB
23:20:13	67.7dB	82.6dB	105.9dB	70.7dB	46.3dB
23:23:13	60.8dB	70.8dB	83.8dB	66.1dB	46.7dB
23:26:13	56.7dB	66.4dB	78.6dB	61.5dB	47.7dB
23:29:13	62.6dB	76.4dB	88.5dB	66.1dB	47.3dB
23:32:13	51.4dB	68.3dB	80.3dB	51.7dB	46.3dB
23:35:13	59.7dB	71.4dB	83.2dB	64.6dB	47.1dB
23:38:13	56.0dB	70.3dB	82.4dB	56.5dB	46.4dB
23:41:13	60.5dB	73.6dB	87.9dB	63.1dB	46.2dB
23:44:13	59.7dB	73.3dB	83.5dB	63.2dB	45.6dB
23:47:13	49.5dB	52.6dB	66.3dB	51.1dB	46.1dB
23:50:13	61.9dB	75.9dB	88.7dB	64.9dB	46.5dB
23:53:13	51.7dB	63.8dB	77.7dB	51.6dB	46.0 dB
23:56:13	67.8dB	83.2dB	95.3dB	70.7dB	46.0dB

NOTES:

Sample ID No : N5-1
Environment : Day time
Frequency of Sampling : 2 nd. Sampling
Sampling Location : JALAN ENGGANG
Sampling Duration : 1 Hour

Measuring Parameters:

Range 40-100dB Weighting A Time Constant FAST
Threshold OFF Exchange Rate 3dB Peak Weighting A

Session Started Session Stopped Run Time
27-AUG-98 @ 16:46:56 27-AUG-98 @ 17:45:56 00:59:00
Peak Level 117.2dB 27-AUG-98 @ 17:43:48
Max Level 100.5dB 27-AUG-98 @ 17:43:47
Min Level 51.9dB 27-AUG-98 @ 17:38:53
Overload 0.00%

LEQ 78.3dB SEL(3) 113.8dB TWA 69.2dB TAKM3 82.2dB
LDN 78.3dB CNEL 78.3dB Pa2Sec 97.4
L90 69.9dB L10 81.0dB L95 68.1dB L50 75.3dB

LOGGING (3 MIN) LEQ LMAX LPK L10 L90**Study 16**

16:49:56	77.5dB	92.9dB	110.2dB	79.7dB	68.7dB
16:52:56	77.8dB	89.7dB	110.0dB	80.7dB	70.7dB
16:55:56	76.8dB	89.5dB	110.4dB	74.4dB	69.4dB
16:58:56	79.0dB	95.2dB	109.3dB	75.3dB	69.4dB
17:01:56	77.2dB	90.1dB	108.6dB	73.9dB	67.7dB
17:04:56	79.0dB	93.3dB	113.8dB	74.7dB	67.3dB
17:07:56	77.7dB	92.9dB	112.4dB	72.8dB	68.3dB
17:10:56	76.1dB	89.5dB	109.7dB	73.1dB	68.5dB
17:13:56	77.8dB	90.4dB	106.2dB	72.9dB	68.7dB
17:16:56	77.8dB	92.6dB	108.1dB	72.6dB	68.8dB
17:19:56	78.3dB	91.9dB	113.7dB	72.6dB	67.7dB
17:22:56	78.8dB	89.7dB	112.8dB	72.4dB	70.1dB
17:25:56	78.0dB	89.2dB	102.6dB	73.0dB	69.4dB
17:28:56	77.3dB	89.7dB	113.2dB	71.8dB	68.1dB
17:31:56	80.2dB	95.1dB	115.1dB	73.1dB	69.1dB
17:34:56	78.2dB	92.6dB	111.0dB	72.2dB	70.0dB
17:37:56	80.0dB	96.9dB	116.0dB	71.9dB	70.0dB
17:40:56	78.2dB	93.9dB	116.4dB	71.5dB	68.6dB
17:43:56	80.9dB	100.5dB	117.2dB	71.2dB	69.8dB

NOTES:

Sample ID No : N5-2
Environment : Night time
Frequency of Sampling : 2 nd. Sampling
Sampling Location : JALAN ENGGANG
Sampling Duration : 1 Hour

+Measuring Parameters:

Range 40- 100dB Weighting A Time Constant FAST
Threshold OFF Exchange Rate 3dB Peak Weighting A

Session Started	Session Stopped	Run Time
4-SEP-98 @ 1:08:22	4-SEP-98 @ 02:07:22	00:59:00
Peak Level 111.0dB	4-SEP-98 @ 01:09:14	
Max Level 93.9dB	4-SEP-98 @ 02:01:22	
Min Level 41.6dB	4-SEP-98 @ 01:37:23	
Overload 0.00%		

LEQ	65.6dB	SEL(3)	101.2dB	TWA	56.6dB	TAKM3	70.6dB
LDN	75.7dB	CNEL	75.7dB	Pa2Sec	0.5		
L90	45.3dB	L10	68.0dB	L95	44.4dB	L50	53.8dB

LOGGING (3 MIN) LEQ LMAX LPK L10 L90

Study 13	LEQ	LMAX	LPK	L10	L90
01:09:22	74.1dB	91.1dB	111.0dB	73.5dB	48.0dB
01:12:22	63.3dB	76.3dB	95.0dB	66.4dB	46.0dB
01:15:22	66.1dB	74.9dB	86.4dB	70.9dB	50.2dB
01:18:22	60.6dB	69.9dB	85.1dB	65.6dB	44.1dB
01:21:22	63.0dB	72.6dB	84.9dB	68.5dB	46.4dB
01:24:22	61.9dB	71.1dB	83.1dB	66.5dB	49.0dB
01:27:22	62.3dB	70.8dB	83.3dB	67.5dB	44.9dB
01:30:22	62.1dB	71.8dB	91.5dB	67.4dB	47.5dB
01:33:22	64.3dB	77.0dB	89.3dB	68.5dB	47.4dB
01:36:22	67.1dB	77.6dB	91.4dB	71.4dB	52.0dB
01:39:22	65.8dB	79.2dB	90.0dB	70.0dB	43.9dB
01:42:22	64.3dB	79.1dB	92.1dB	68.6dB	47.5dB
01:45:22	66.3dB	81.2dB	93.9dB	67.6dB	43.8dB
01:48:22	64.3dB	78.6dB	91.3dB	66.7dB	44.9dB
01:51:22	71.1dB	85.5dB	107.3dB	72.6dB	46.9dB
01:54:22	63.0dB	76.7dB	92.2dB	66.4dB	44.3dB
01:57:22	60.4dB	72.7dB	85.0dB	64.1dB	43.0dB
02:00:22	63.6dB	73.6dB	85.8dB	68.5dB	45.7dB
02:03:22	62.0dB	75.1dB	88.4dB	66.3dB	45.1 dB
02:06:22	67.4dB	81.9dB	94.0dB	69.3dB	44.8dB

NOTES:

Sample ID No : N1-1
Environment : Day time
Frequency of Sampling : 3 rd. Sampling
Sampling Location : KESAS HIGHWAY (Before Barrier)
Sampling Duration : 30 Minutes

Measuring Parameters:

Range 40-100dB Weighting A Time Constant FAST
Threshold OFF Exchange Rate 3dB Peak Weighting A

Session Started	Session Stopped	Run Time
29-AUG-98 @ 9:46:43	29-AUG-98 @ 10:16:43	00:30:00
Peak Level 104.9dB	29-AUG-98 @ 9:48:53	
Max Level 91.6dB	29-AUG-98 @ 10:14:11	
Min Level 62.7dB	29-AUG-98 @ 9:47:57	
Overload 0.00%		

LEQ	78.0dB	SEL(3)	110.6dB	TWA	66.0dB	TAKM3	80.6dB
LDN	78.0dB	CNEL	78.0dB	Pa2Sec	46.2		
L90	71.9dB	L10	80.8dB	L95	70.4dB	L50	76.5dB

LOGGING (3 MIN)	LEQ	LMAX	LPK	L10	L90
Study 2					
09:49:43	77.7dB	89.3dB	104.9dB	80.6dB	72.2dB
09:52:43	78.8dB	89.6dB	101.4dB	81.6dB	72.2dB
09:55:43	76.9dB	90.7dB	102.4dB	75.5dB	70.1dB
09:58:43	79.0dB	89.6dB	102.5dB	77.0dB	69.7dB
10:01:43	77.6dB	87.0dB	100.0dB	74.5dB	70.1dB
10:04:43	78.1dB	88.3dB	101.9dB	75.6dB	71.6dB
10:07:43	77.3dB	84.4dB	97.1dB	74.1dB	70.5dB
10:10:43	78.3dB	85.6dB	97.7dB	75.3dB	72.7dB
10:13:43	78.2dB	90.1dB	100.9dB	74.4dB	70.9dB
10:16:43	78.5dB	91.6dB	102.4dB	75.1dB	71.2dB

NOTES:

Sample ID No : N1-2
Environment : Night time
Frequency of Sampling : 3 rd. Sampling
Sampling Location : KESAS HIGHWAY (Before Barrier)
Sampling Duration : 30 Minutes

Meter Calibration: 114.0dB 12-SEP-98 @ 22:09:11

Calibrator:
Serial Number _____ Calibration Date _____

Measuring Parameters:
Range 50- 110dB Weighting A Time Constant FAST
Threshold OFF Exchange Rate 3dB Peak Weighting A

Session Started	Session Stopped	Run Time
12-SEP-98 @ 22:40:06	12-SEP-98 @ 23:10:06	00:30:00
Peak Level 109.3dB	12-SEP-98 @ 22:59:10	
Max Level 84.2dB	12-SEP-98 @ 23:05:41	
Min Level 42.3dB	12-SEP-98 @ 22:58:51	
Overload 0.00%		

LEQ	67.0dB	SEL(3)	99.6dB	TWA	55.0dB	TAKM3	71.0dB
LDN	73.3dB	CNEL	74.5dB	Pa2Sec	0.0		
L90	52.6B	L10	70.9dB	L95	49.9dB	L50	62.7dB

LOGGING (3 MIN) LEQ LMAX LPK L10 L90

22:43:06	66.4dB	77.5dB	91.6dB	70.3dB	57.0dB
22:46:06	67.4dB	81.4dB	94.7dB	70.8dB	53.8dB
22:49:06	66.7dB	76.6dB	91.5dB	61.9dB	53.6dB
22:52:06	67.5dB	80.7dB	98.4dB	64.3dB	54.8dB
22:55:06	66.6dB	80.1dB	94.0dB	59.3dB	51.6dB
22:58:06	66.7dB	78.6dB	93.2dB	60.7dB	49.9dB
23:01:06	67.6dB	81.7dB	109.3B	59.2B	48.9dB
23:04:06	66.4dB	75.7dB	90.4dB	59.9dB	48.9dB
23:07:06	67.6dB	84.2dB	98.5dB	56.6dB	48.9dB
23:10:06	66.8dB	79.0dB	99.7dB	58.2dB	49.7dB

QUEST TECHNOLOGIES
1900 INTEGRATING/LOGGING SOUND LEVEL METER

Unit Version Number: 01.6

Serial Number:

NOTES:

Sample ID No : N1-3
Environment : Day time
Frequency of Sampling : 3 rd. Sampling
Sampling Location : KESAS HIGHWAY (After Barrier)
Sampling Duration : 30 Minutes

Meter Calibration: 114.0dB 27-AUG-98 @ 8:16:04

Calibrator:

Serial Number _____ Calibration Date _____

Measuring Parameters:

Range 40-100dB Weighting A Time Constant FAST
Threshold OFF Exchange Rate 3dB Peak Weighting A

Session Started Session Stopped Run Time
29-AUG-98 @ 9:05:16 29-AUG-98 @ 9:35:17 00:30:00
Peak Level 97.7dB 29-AUG-98 @ 9:33:02
Max Level 82.9dB 29-AUG-98 @ 9:32:58
Min Level 54.5dB 29-AUG-98 @ 9:31:22
Overload 0.00%

LEQ 65.1dB SEL(3) 97.7dB TWA 53.1dB TAKM3 67.3dB
LDN 65.1dB CNEL 65.1dB Pa2Sec 2.3
L90 61.1dB L10 67.0dB L95 60.0dB L50 64.0dB

LOGGING (3 MIN) LEQ LMAX LPK L10 L90

Study 1

09:08:16	65.8dB	77.6dB	90.1dB	68.1dB	62.0dB
09:11:16	63.5dB	74.8dB	87.6dB	65.6dB	58.7dB
09:14:16	66.5dB	77.1dB	92.3dB	64.1dB	61.3dB
09:17:16	64.3dB	72.5dB	84.7dB	63.2dB	59.2dB
09:20:16	64.8dB	71.9dB	89.0dB	63.6dB	60.8dB
09:23:16	65.6dB	73.2dB	88.4dB	63.0dB	61.6dB
09:26:16	64.3dB	70.8dB	82.1dB	62.8dB	61.4dB
09:29:16	66.4dB	77.7dB	90.3dB	62.5dB	60.9dB
09:32:16	63.7dB	71.7dB	86.3dB	63.0dB	59.3dB
09:35:16	65.7dB	82.9dB	97.7dB	62.5dB	60.0dB

NOTES:

Sample ID No : N1-4
Environment : Night time
Frequency of Sampling : 3 rd. Sampling
Sampling Location : KESAS HIGHWAY (After Barrier)
Sampling Duration : 30 Minutes

Meter Calibration: 114.0dB 13-SEP-98 @ 22:09:11

Calibrator:
Serial Number _____ Calibration Date _____

Measuring Parameters:

Range 40- 100dB Weighting A Time Constant FAST
Threshold OFF Exchange Rate 3dB Peak Weighting A

Session Started	Session Stopped	Run Time
13-SEP-98 @ 22:21:09	13-SEP-98 @ 22:51:10	00:30:00
Peak Level 87.6dB	13-SEP-98 @ 22:45:59	
Max Level 66.7dB	13-SEP-98 @ 22:34:27	
Min Level 42.1dB	13-SEP-98 @ 22:50:38	
Overload 0.00%		

LEQ	55.3dB	SEL(3)	87.9dB	TWA	43.3dB	TAKM3	58.0dB
LDN	55.3dB	CNEL	60.38dB	Pa2Sec	0.0		
L90	54.9dB	L10	58.0dB	L95	48.3dB	L50	54.2dB

LOGGING (3 MIN) LEQ LMAX LPK L10 L90

22:24:09	55.3dB	62.8dB	79.1dB	57.8dB	51.0dB
22:27:09	55.6dB	66.1dB	80.8dB	59.0dB	49.8dB
22:30:09	55.1dB	62.4dB	78.1dB	54.5dB	48.6dB
22:33:09	54.9dB	63.0dB	77.2dB	54.1dB	50.0dB
22:36:09	56.0dB	66.7dB	85.8dB	53.4dB	50.2dB
22:39:09	54.8dB	66.5dB	79.8dB	52.9dB	49.8dB
22:42:09	55.9dB	65.7dB	78.8dB	52.6dB	50.5dB
22:45:09	55.9dB	66.5dB	85.5dB	51.9dB	47.6dB
22:48:09	54.7dB	65.7dB	87.6dB	52.5dB	48.0dB
22:51:09	54.7dB	60.4dB	78.3dB	51.5dB	47.2dB

NOTES:

Sample ID No : N2-1
Environment : Day time
Frequency of Sampling : 3 rd. Sampling
Sampling Location : KG. LEMBAH JAYA UTARA
Sampling Duration : 1 Hour

Measuring Parameters:

Range 30- 90dB Weighting A Time Constant FAST
Threshold OFF Exchange Rate 3dB Peak Weighting A

Session Started Session Stopped Run Time
29-AUG-98 @ 12:01:44 29-AUG-98 @ 13:00:44 00:59:00
Peak Level 113.7dB 29-AUG-98 @ 12:43:50
Max Level 94.3dB 29-AUG-98 @ 12:43:49
Min Level 43.1dB 29-AUG-98 @ 12:32:33
Overload 0.00%

LEQ 67.8dB SEL(3) 103.3dB TWA 58.7dB TAKM3 72.8dB
LDN 67.8dB CNEL 67.8dB Pa2Sec 8.6
L90 51.5dB L10 70.6dB L95 50.2dB L50 58.9dB

LOGGING (3 MIN) LEQ LMAX LPK L10 L90
Study 3

12:04:44	62.5dB	78.7dB	101.0dB	67.3dB	51.7dB
12:07:44	65.3dB	82.6dB	95.3dB	66.9dB	52.0dB
12:10:44	68.6dB	84.1dB	107.3dB	57.5dB	51.3dB
12:13:44	67.2dB	82.2dB	101.6dB	57.0dB	51.7dB
12:16:44	66.0dB	83.9dB	103.3dB	55.4dB	50.9dB
12:19:44	68.8dB	85.3dB	103.4dB	55.4dB	52.1dB
12:22:44	66.7dB	82.0dB	99.4dB	54.8dB	50.9dB
12:25:44	67.0dB	79.7dB	95.6dB	54.8dB	52.5dB
12:28:44	65.0dB	77.3dB	100.0dB	53.6dB	49.9dB
12:31:44	67.8dB	79.6dB	99.3dB	56.4dB	50.3dB
12:34:44	67.0dB	87.9dB	101.3dB	52.8dB	48.0dB
12:37:44	68.1dB	81.1dB	103.4dB	55.0dB	49.5dB
12:40:44	68.1dB	81.8dB	99.9dB	53.9dB	50.6dB
12:43:44	66.8dB	83.2dB	97.5dB	53.3dB	50.8dB
12:46:44	74.1dB	94.3dB	113.7dB	52.8dB	50.2dB
12:49:44	66.4dB	83.4dB	101.4dB	54.6dB	48.1dB
12:52:44	67.6dB	87.1dB	108.2dB	52.6dB	50.4dB
12:55:44	67.8dB	84.5dB	100.3dB	54.1dB	47.7dB
12:58:44	66.8dB	78.8dB	95.8dB	54.4dB	51.3dB

NOTES:

Sample ID No : N2-2
Environment : Night time
Frequency of Sampling : 3 rd. Sampling
Sampling Location : KG. LEMBAH JAYA UTARA
Sampling Duration : 1 Hour

Measuring Parameters:

Range 30- 90dB Weighting A Time Constant FAST
Threshold OFF Exchange Rate 3dB Peak Weighting A

Session Started Session Stopped Run Time
30-AUG-98 @ 21:28:55 30-AUG-98 @ 22:27:55 00:59:00
Peak Level 111.2dB 30-AUG-98 @ 21:46:29
Max Level 89.0dB 30-AUG-98 @ 21:46:28
Min Level 45.4dB 30-AUG-98 @ 21:35:25
Overload 0.00%

LEQ 62.0dB SEL(3) 97.5dB TWA 52.9dB TAKM3 67.4dB
LDN 68.6dB CNEL 69.7dB Pa2Sec 2.2
L90 49.1dB L10 61.7dB L95 48.4dB L50 51.1dB

LOGGING (3 MIN) LEQ LMAX LPK L10 L90

Study 5

21:31:55	58.9dB	75.3dB	92.4dB	60.0dB	47.2dB
21:34:55	58.8dB	76.4dB	93.3dB	60.2dB	47.5dB
21:37:55	53.6dB	71.9dB	93.3dB	49.6dB	47.3dB
21:40:55	61.1dB	78.3dB	105.7dB	51.7dB	47.7dB
21:43:55	59.8dB	78.7dB	94.2dB	48.8dB	47.3dB
21:46:55	70.1dB	89.0dB	111.2dB	51.3dB	47.7dB
21:49:55	62.0dB	76.4dB	92.4dB	49.0dB	47.3dB
21:52:55	59.0dB	77.1dB	92.6dB	50.0dB	47.7dB
21:55:55	54.0dB	67.5dB	82.7dB	48.9dB	47.3dB
21:58:55	61.6dB	78.0dB	93.6dB	50.0dB	47.7dB
22:01:55	63.7dB	77.8dB	99.2dB	49.0dB	47.3dB
22:04:55	57.6dB	76.6dB	91.1dB	49.6dB	47.7dB
22:07:55	61.0dB	79.0dB	92.3dB	49.0dB	47.3dB
22:10:55	62.6dB	83.5dB	95.4dB	49.6dB	47.7dB
22:13:55	56.2dB	71.2dB	83.9dB	49.0dB	47.3dB
22:16:55	64.9dB	86.5dB	105.5dB	49.6dB	47.7dB
22:19:55	58.2dB	77.9dB	93.0dB	49.0dB	47.3dB
22:22:55	58.2dB	76.9dB	92.6dB	49.6dB	47.7dB
22:25:55	60.9dB	78.5dB	92.3dB	49.0dB	47.3dB

NOTES:

Sample ID No : N3-1
Environment : Day time
Frequency of Sampling : 3 rd. Sampling
Sampling Location : KG. SRI TANJUNG
Sampling Duration : 1 Hour

Measuring Parameters:

Range 30- 90dB Weighting A Time Constant FAST
Threshold OFF Exchange Rate 3dB Peak Weighting A

Session Started Session Stopped Run Time
29-AUG-98 @ 13:15:49 29-AUG-98 @ 14:14:49 00:59:00
Peak Level 110.9dB 29-AUG-98 @ 14:07:49
Max Level 88.5dB 29-AUG-98 @ 14:07:48
Min Level 38.6dB 29-AUG-98 @ 14:11:36
Overload 0.00% ..

LEQ 62.7dB SEL(3) 98.2dB TWA 53.6dB TAKM3 67.9dB
LDN 62.7dB CNEL 62.7dB Pa2Sec 2.6
L90 44.0dB L10 65.2dB L95 43.2dB L50 49.8dB

LOGGING (3 MIN) LEQ LMAX LPK L10 L90

Study 4
13:18:49 62.8dB 75.4dB 91.5dB 68.0dB 45.3dB
13:21:49 64.4dB 82.2dB 98.1dB 68.4dB 48.8dB
13:24:49 62.4dB 80.8dB 94.8dB 49.9dB 44.7dB
13:27:49 58.9dB 77.1dB 89.8dB 52.1dB 44.1dB
13:30:49 62.8dB 77.9dB 96.0dB 48.0dB 44.4dB
13:33:49 62.1dB 78.6dB 91.9dB 49.2dB 44.6dB
13:36:49 59.5dB 78.4dB 94.4dB 47.3dB 44.5dB
13:39:49 60.7dB 77.9dB 107.7dB 46.4dB 44.4dB
13:42:49 57.0dB 76.3dB 88.3dB 46.5dB 44.2dB
13:45:49 60.4dB 74.6dB 92.3dB 45.9dB 43.9dB
13:48:49 60.1dB 74.7dB 96.4dB 45.7dB 43.6dB
13:51:49 60.9dB 77.9dB 93.7dB 45.6dB 43.6dB
13:54:49 57.7dB 77.0dB 85.6dB 45.5dB 43.5dB
13:57:49 64.1dB 78.7dB 92.1dB 45.7dB 43.7dB
14:00:49 62.2dB 77.7dB 97.1dB 46.1dB 43.9dB
14:03:49 65.1dB 87.2dB 99.5dB 46.9dB 43.7dB
14:06:49 62.3dB 79.0dB 93.9dB 44.9dB 41.8dB
14:09:49 69.2dB 88.5dB 110.9dB 47.1dB 41.3dB
14:12:49 59.6dB 76.0dB 92.7dB 44.1dB 41.6dB

NOTES:

Sample ID No : N3-2
Environment : Night time
Frequency of Sampling : 3 rd. Sampling
Sampling Location : KG. SRI TANJUNG
Sampling Duration : 1 Hour

Measuring Parameters:

Range 30- 90dB Weighting A Time Constant FAST
Threshold OFF Exchange Rate 3dB Peak Weighting A

Session Started Session Stopped Run Time
30-AUG-98 @ 22:51:37 30-AUG-98 @ 23:50:37 00:59:00
Peak Level 105.0dB 30-AUG-98 @ 23:16:51
Max Level 85.1dB 30-AUG-98 @ 23:16:50
Min Level 43.2dB 30-AUG-98 @ 23:03:26
Overload 0.00% ..

LEQ 61.1dB SEL(3) 96.6dB TWA 52.0dB TAKM3 65.5dB
LDN 71.1dB CNEL 71.1dB Pa2Sec 1.8
L90 45.3dB L10 63.2dB L95 45.0dB L50 48.4dB

LOGGING (3 MIN) LEQ LMAX LPK L10 L90

Study 6

22:54:37	66.0dB	82.9dB	94.9dB	68.7dB	49.2dB
22:57:37	61.2dB	78.7dB	94.0dB	61.6dB	47.5dB
23:00:37	62.9dB	79.1dB	92.5dB	56.4dB	47.1dB
23:03:37	58.4dB	74.9dB	97.4dB	48.8dB	44.7dB
23:06:37	59.9dB	79.5dB	88.9dB	50.0dB	45.8dB
23:09:37	62.1dB	79.5dB	94.7dB	47.9dB	44.8dB
23:12:37	60.7dB	79.9dB	101.9dB	47.3dB	45.7dB
23:15:37	60.6dB	77.7dB	89.6dB	47.9dB	44.7dB
23:18:37	65.8dB	85.1dB	105.0dB	46.9dB	45.7dB
23:21:37	57.4dB	73.4dB	85.9dB	46.1dB	44.9dB
23:24:37	62.7dB	80.9dB	92.1dB	46.3dB	44.8dB
23:27:37	59.7dB	71.8dB	84.5dB	46.3dB	44.8dB
23:30:37	56.7dB	73.3dB	85.0dB	46.0dB	44.9dB
23:33:37	56.9dB	71.3dB	82.2dB	46.2dB	45.0dB
23:36:37	60.1dB	79.9dB	89.0dB	46.0dB	44.8dB
23:39:37	57.6dB	76.4dB	92.3dB	45.7dB	44.8dB
23:42:37	61.2dB	80.6dB	91.2dB	45.8dB	44.8dB
23:45:37	54.5dB	71.4dB	83.5dB	45.3dB	44.6dB
23:48:37	60.7dB	77.9dB	96.6dB	45.7dB	44.9dB

NOTES:

Sample ID No : N4-1
 Environment : Day time
 Frequency of Sampling : 3rd. Sampling
 Sampling Location : JALAN PUCHONG
 Sampling Duration : 1 Hour

Measuring Parameters:

Range 50- 110dB Weighting A Time Constant FAST
 Threshold OFF Exchange Rate 3dB Peak Weighting A

Session Started Session Stopped Run Time
 12-SEP-98 @ 14:18:41 12-SEP-98 @ 15:17:41 00:59:00
 Peak Level 116.8dB 12-SEP-98 @ 04:39:33
 Max Level 96.0dB 12-SEP-98 @ 04:39:32
 Min Level 43.3dB 12-SEP-98 @ 04:30:15
 Overload 0.00%

LEQ 67.5dB SEL(3) 102.9dB TWA 58.4dB TAKM3 72.9dB
 LDN 77.5dB CNEL 77.5dB Pa2Sec 0.0
 L90 52.4dB L10 67.9dB L95 50.1dB L50 61.9dB

LOGGING (3 MIN) LEQ LMAX LPK L10 L90

14:21:41	72.8dB	94.6dB	116.3dB	69.7dB	54.4dB
14:24:41	67.7dB	87.3dB	104.6dB	69.3dB	54.9dB
14:27:41	63.8dB	73.0dB	94.5dB	62.5dB	52.9dB
14:30:41	61.4dB	69.4dB	86.3dB	61.2dB	48.9dB
14:33:41	66.8dB	84.3dB	108.6dB	60.7dB	51.4dB
14:36:41	68.6dB	87.5dB	109.5dB	58.6dB	48.8dB
14:39:41	73.6dB	96.0dB	116.8dB	58.4dB	48.8dB
14:42:41	70.8dB	90.6dB	113.0dB	58.9dB	51.0dB
14:45:41	64.0dB	77.1dB	98.1dB	57.4dB	50.7dB
14:48:41	65.3dB	80.0dB	99.1dB	57.0dB	51.3dB
14:51:41	64.6dB	80.2dB	98.5dB	55.5dB	48.5dB
14:54:41	63.2dB	75.6dB	95.4dB	56.6dB	48.2dB
14:57:41	65.7dB	81.3dB	96.0dB	59.0dB	51.3dB
15:00:41	64.8dB	77.6dB	94.3dB	56.7dB	51.5dB
15:03:41	64.8dB	79.6dB	101.2dB	57.9dB	48.9dB
15:06:41	62.1dB	72.1dB	89.4dB	56.7dB	48.0dB
15:09:41	63.1dB	74.2dB	96.9dB	55.0dB	49.7dB
15:12:41	64.9dB	76.0dB	95.1dB	56.5dB	51.7dB
15:15:41	66.6dB	79.0dB	99.1dB	59.2dB	50.6dB

NOTES:

Sample ID No : N4-2
Environment : Night time
Frequency of Sampling : 3 rd. Sampling
Sampling Location : JALAN PUCHONG
Sampling Duration : 1 Hour

Measuring Parameters:

Range 40-100dB Weighting A Time Constant FAST
Threshold OFF Exchange Rate 3dB Peak Weighting A

Session Started Session Stopped Run Time
05-SEP-98 @ 0:12:50 05-SEP-98 @ 1:11:50 00:59:00
Peak Level 116.3dB 05-SEP-98 @ 1:10:53
Max Level 99.1dB 05-SEP-98 @ 0:35:54
Min Level 41.6dB 05-SEP-98 @ 0:29:16
Overload 0.00%

LEQ 69.6dB SEL(3) 105.1dB TWA 60.5dB TAKM3 74.9dB
LDN 79.6dB CNEL 79.6dB Pa2Sec 12.9
L90 44.9dB L10 70.8dB L95 43.5dB L50 58.3dB

LOGGING (3 MIN) LEQ LMAX LPK L10 L90

Study 7
00:15:50 65.2dB 78.4dB 91.5dB 69.7dB 49.3dB
00:18:50 65.1dB 78.4dB 96.0dB 69.6dB 43.6dB
00:21:50 66.2dB 79.8dB 91.2dB 59.4dB 46.6dB
00:24:50 67.8dB 83.2dB 96.1dB 56.1dB 44.5dB
00:27:50 66.8dB 82.3dB 101.6dB 54.6dB 46.2dB
00:30:50 66.2dB 80.4dB 92.7dB 52.4dB 42.8dB
00:33:50 66.7dB 82.8dB 97.7dB 55.7dB 45.3dB
00:36:50 74.8dB 99.1dB 114.2dB 48.0dB 44.9dB
00:39:50 67.6dB 79.2dB 99.7dB 52.7dB 47.1dB
00:42:50 65.1dB 78.7dB 93.2dB 47.5dB 43.9dB
00:45:50 69.1dB 88.2dB 104.6dB 50.8dB 45.3dB
00:48:50 71.0dB 88.1dB 110.5dB 46.8dB 44.5dB
00:51:50 67.6dB 84.4dB 95.8dB 50.0dB 43.6dB
00:54:50 63.9dB 79.0dB 91.9dB 46.4dB 43.1dB
00:57:50 66.2dB 79.7dB 95.5dB 52.4dB 42.7dB
01:00:50 67.6dB 84.5dB 101.9dB 48.2dB 44.5dB
01:03:50 66.7dB 83.7dB 105.8dB 48.8dB 43.3dB
01:06:50 71.1dB 89.5dB 105.3dB 46.1dB 42.4dB
01:09:50 62.1dB 74.8dB 91.4dB 46.2dB 42.1dB

NOTES:

Sample ID No : N5-1
Environment : Day time
Frequency of Sampling : 3rd. Sampling
Sampling Location : JALAN ENGGANG
Sampling Duration : 1 Hour

Measuring Parameters:

Range 50- 110dB Weighting A Time Constant FAST
Threshold OFF Exchange Rate 3dB Peak Weighting A

Session Started	Session Stopped	Run Time
13-SEP-98 @ 15:30:48	13-SEP-98 @ 16:29:48	00:59:00
Peak Level 110.7dB	13-SEP-98 @ 16:10:16	
Max Level 90.6dB	13-SEP-98 @ 16:10:15	
Min Level 44.3dB	13-SEP-98 @ 16:14:48	
Overload 0.00%	--	

LEQ 70.2dB SEL(3) 105.7dB TWA 61.1dB TAKM3 74.7dB
LDN 80.2dB CNEL 80.2dB Pa2Sec 0.0
L90 59.0dB L10 73.0dB L95 55.8dB L50 67.2dB

LOGGING (3 MIN) LEQ LMAX LPK L10 L90

15:33:48	68.1dB	79.2dB	96.6dB	71.6dB	59.1dB
15:36:48	67.3dB	75.7dB	95.6dB	71.1dB	55.7dB
15:39:48	70.3dB	81.5dB	101.4dB	67.1dB	58.5dB
15:42:48	70.4dB	87.0dB	103.6dB	66.4dB	56.1dB
15:45:48	70.4dB	84.3dB	105.1dB	65.6dB	61.3dB
15:48:48	70.5dB	83.2dB	105.9dB	65.5dB	57.5dB
15:51:48	68.8dB	84.2dB	96.7dB	64.8dB	57.8B
15:54:48	69.0dB	80.9dB	99.7dB	64.2dB	56.5dB
15:57:48	69.3dB	84.4dB	104.4dB	64.2dB	58.1dB
16:00:48	70.8dB	85.0dB	109.8dB	62.5dB	58.2dB
16:03:48	69.9dB	86.3dB	102.4dB	62.6dB	55.9dB
16:06:48	71.3dB	88.7dB	105.6B	63.7dB	57.6dB
16:09:48	71.7dB	90.2dB	110.0dB	62.4dB	55.7dB
16:12:48	72.2dB	90.6dB	110.7dB	63.6dB	55.5dB
16:15:48	69.2dB	79.2dB	102.3dB	64.1dB	53.9dB
16:18:48	69.4dB	82.1dB	97.4dB	61.6dB	54.6dB
16:21:48	71.7dB	86.0dB	109.7dB	62.6dB	56.3dB
16:24:48	69.1dB	80.2dB	97.8dB	63.7dB	58.0dB
16:27:48	69.9dB	83.1dB	104.2dB	63.7dB	58.0dB

NOTES:

Sample ID No : N5-2
Environment : Night time
Frequency of Sampling : 3 rd. Sampling
Sampling Location : JALAN ENGGANG
Sampling Duration : 1 Hour

Measuring Parameters:

Range 40-100dB Weighting A Time Constant FAST
Threshold OFF Exchange Rate 3dB Peak Weighting A

Session Started	Session Stopped	Run Time
05-SEP-98 @ 1:24:46	05-SEP-98 @ 2:23:46	00:59:00
Peak Level 121.1dB	05-SEP-98 @ 1:31:27	
Max Level 104.7dB	05-SEP-98 @ 1:31:26	
Min Level 46.5dB	05-SEP-98 @ 1:56:02	
Overload 0.00%	--	

LEQ 73.3dB SEL(3) 108.8dB TWA 64.2dB TAKM3 78.7dB
LDN 83.3dB CNEL 83.3dB Pa2Sec 30.5
L90 58.5dB L10 74.5dB L95 58.2dB L50 63.1dB

LOGGING (3 MIN) LEQ LMAX LPK L10 L90

Study 8	LEQ	LMAX	LPK	L10	L90
01:27:46	69.6dB	82.6dB	101.3dB	73.6dB	59.3dB
01:30:46	69.7dB	80.9dB	92.3dB	73.8dB	59.6dB
01:33:46	79.7dB	104.7dB	121.1dB	64.2dB	58.8dB
01:36:46	70.4dB	82.9dB	96.9dB	64.5dB	59.1dB
01:39:46	71.4dB	86.7dB	105.1dB	61.9dB	58.7dB
01:42:46	70.2dB	85.0dB	101.0dB	62.0dB	58.9dB
01:45:46	71.9dB	86.4dB	106.9dB	60.7dB	59.2dB
01:48:46	70.9dB	84.6dB	106.0dB	61.0dB	58.8dB
01:51:46	70.0dB	81.8dB	95.2dB	60.0dB	58.4dB
01:54:46	72.0dB	87.0dB	108.5dB	59.8dB	58.6dB
01:57:46	68.6dB	80.5dB	95.0dB	59.7dB	58.2dB
02:00:46	69.4dB	84.2dB	96.2dB	59.6dB	58.4dB
02:03:46	68.8dB	81.4dB	104.6dB	59.4dB	58.2dB
02:06:46	69.6dB	81.4dB	103.2dB	62.8dB	58.1dB
02:09:46	67.6dB	79.8dB	92.3dB	58.9dB	58.3dB
02:12:46	77.6dB	99.3dB	115.7dB	60.5dB	58.4dB
02:15:46	69.6dB	81.2dB	92.6dB	59.0dB	58.1dB
02:18:46	72.5dB	87.3dB	107.4dB	59.2dB	57.9dB
02:21:46	70.3dB	83.7dB	108.5dB	58.7dB	57.9dB

APPENDIX B

AUDIOGRAM (SUBURBAN)

AUDIOGRAM

R.N.

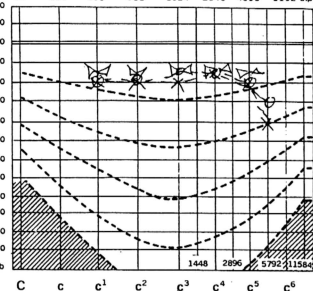
Age

f'59.

Name

Zariah Tmb.

64 128 256 512 1024 2048 4096 8192 c.p.s.



Notes :

Tm Sul (reg)

UDIOGRAM

Date

13/3/99.

Signature

[Signature]

MR 569/1

AUDIOGRAM

R.N.

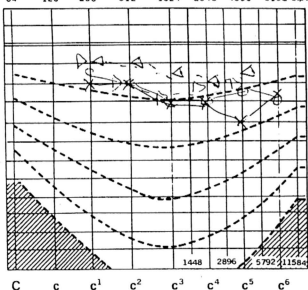
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Name

Kamisah Omar

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Notes :

UDIOGRAM

Date

13-3-99

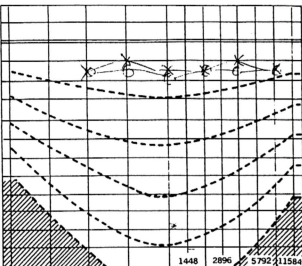
Signature

Amtul

MR 569/1

AUDIOGRAM

64 128 256 512 1024 2048 4096 8192 c.p.s.



R.N.

Name

Age 57
Rumlan Larned

Notes :

Time

KEY

	R (red)	L (blue)
AC	○	×
AC (masked)	△	□
BC	>	<
BC (masked)	▷	◁

AUDIOGRAM

Date 13-3-99

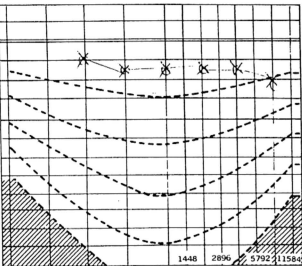
Signature

Amal

MR 569/1

AUDIOGRAM

64 128 256 512 1024 2048 4096 8192 c.p.s.



R.N.

Name

Age 57
Hafizah Mohamed

Notes :

1st Time

KEY

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AC (masked)	△	□
BC	>	<
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AUDIOGRAM

Date 13-3-99

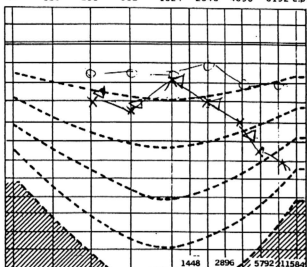
Signature

Amal

MR 569/1

AUDIOGRAM

64 128 256 512 1024 2048 4096 8192 c.p.s.



C c c¹ c² c³ c⁴ c⁵ c⁶

DIAGRAM

Date 10/1/95

Signature

MR 569/1

R.N.

Age

F/26

Name

Norlela Dte md Nor

- Mrs Wallem 2 Jan

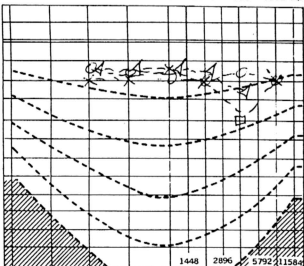
Notes: The Bil (R).

KEY

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AC (masked)	△	□
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BC (masked)	▷	◁

AUDIOGRAM

64 128 256 512 1024 2048 4096 8192 c.p.s.



C c c¹ c² c³ c⁴ c⁵ c⁶

DIAGRAM

Date 13/3/99

Signature

MR 569/1

R.N.

Age

F 43

Name

Wan Joh

Wan Joh had a mit ~
the left ear

Notes:

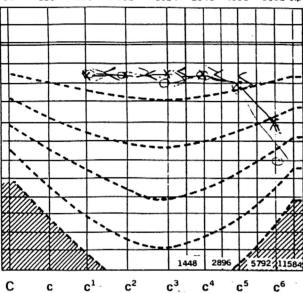
Bil (R)

KEY

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AC (masked)	△	□
BC	>	<
BC (masked)	▷	◁

AUDIOGRAM

64 128 256 512 1024 2048 4096 8192 c.p.s.



C c c¹ c² c³ c⁴ c⁵ c⁶

D I O G R A M

Date 13/3/95

R.N. _____ Age 42

Name Jamaliah Mohd Haniff

Worked in factory 6 yrs - not noisy
no hearing

Notes: R & L

KEY

	R (red)	L (blue)
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AC (masked)	△	□
BC	>	<
BC (masked)	▷	◁

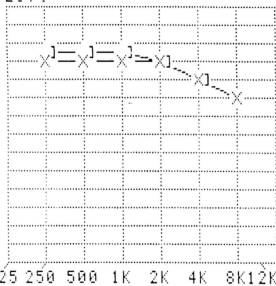
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MR 569/1

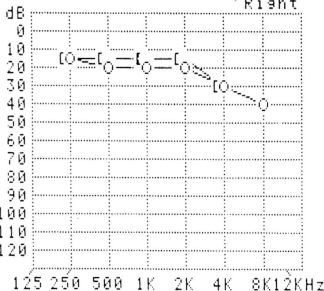
Date 18-Dec-1999
Time 11:30

Universiti Hospital Kuala Lumpur
Ear, Nose & Throat

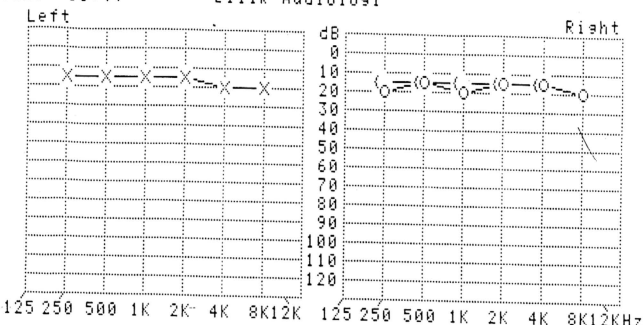
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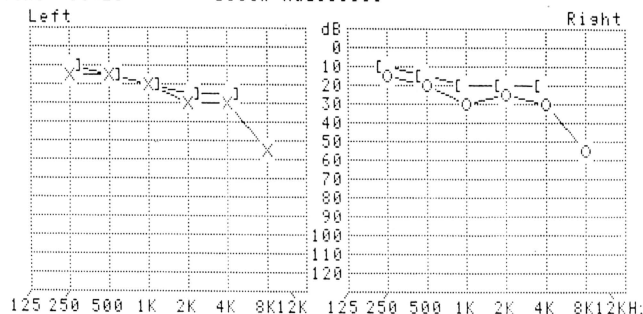
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Date 18-Dec-1999 Universiti Hospital Kuala Lumpur
 Time 10:44 Eilik Audiologi



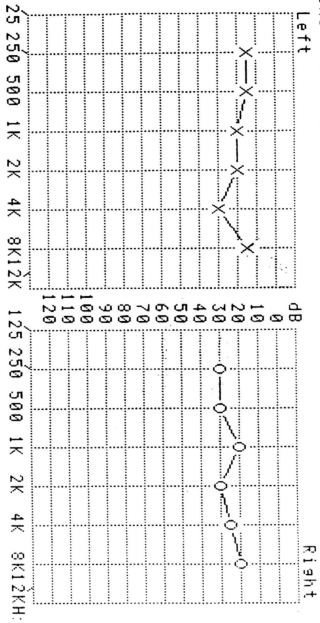
Date 18-Dec-1999 Universiti Hospital Kuala Lumpur
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APPENDIX C

AUDIOGRAM (URBAN)

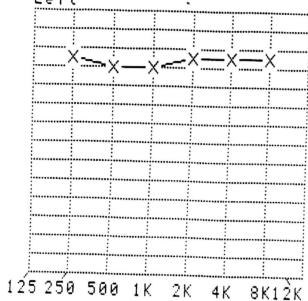
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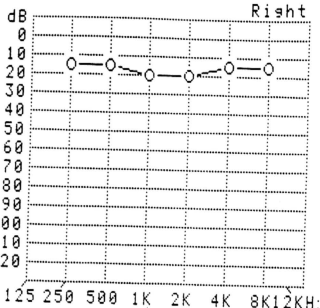
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Universiti Hospital Kuala Lumpur
Eilik Audiologi

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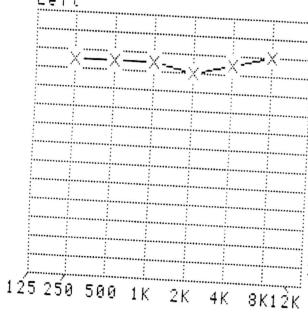
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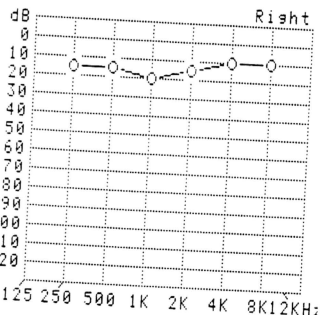
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Universiti Hospital Kuala Lumpur
Eilik Audiologi

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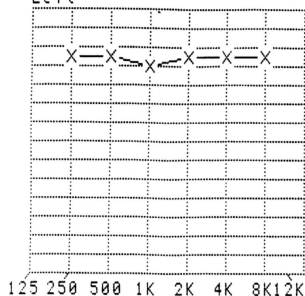


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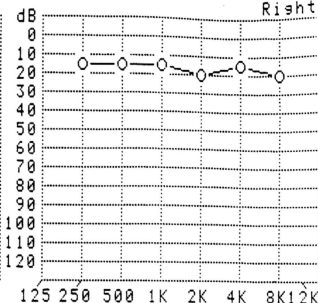


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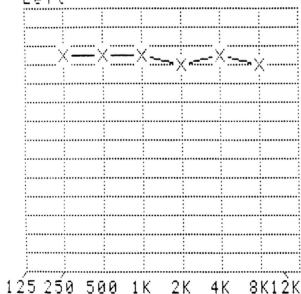


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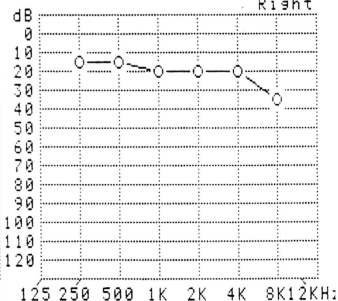


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Time 12:49PM Eilik Audiologi

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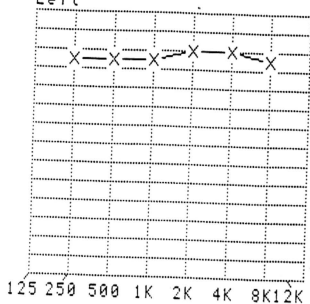


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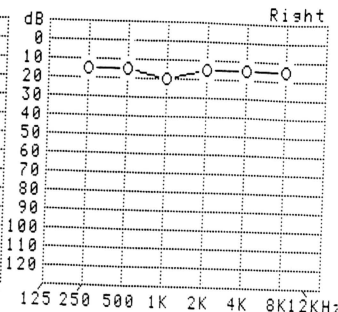


Date 2000-Jan- 6 Universiti Hospital Kuala Lumpur
 Time 01:07PM Eilik Audiologi

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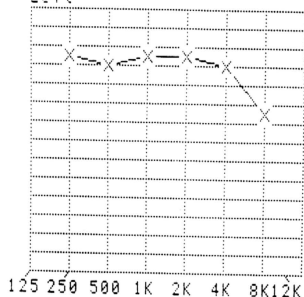


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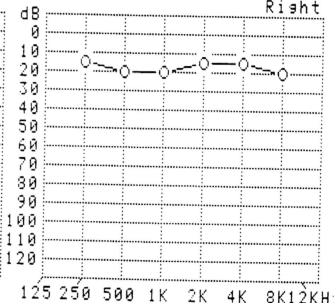


Date 2000-Jan- 6 Universiti Hospital Kuala Lumpur
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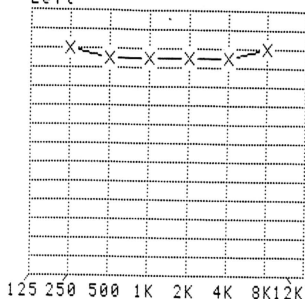


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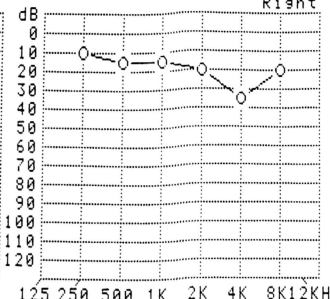


Date 2000-Jan- 6 Universiti Hospital Kuala Lumpur
 Time 01:12PM Eilik Audiologi

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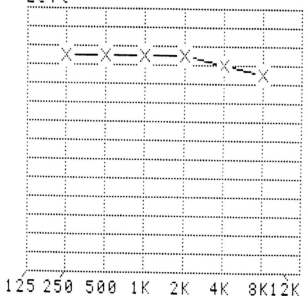


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 Time 01:14PM Eilik Audiologi

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